DIVAR AN 3000 / DIVAR AN 5000

Digital Video Recorder

BOSCH

en Quick Reference Guide

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1 Basic Safety

This safety section describes safety requirements and the format used for warnings and cautions.

1.1 Safety precautions

Warnings and caution formats

Danger!

High risk: This symbol indicates an imminently hazardous situation such as "Dangerous Voltage" inside the product.

If not avoided, this will result in an electrical shock, serious bodily injury, or death.

Warning!

Medium risk: Indicates a potentially hazardous situation.

If not avoided, this could result in minor or moderate bodily injury.

Caution!

Low risk: Indicates a potentially hazardous situation.

if not avoided, this could result in property damage or risk of damage to the unit.

Notice!

This symbol indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

1.2 Important safety instructions

Read, follow, and retain for future reference all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit.

1. **Cleaning -** Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. Generally, using a dry cloth for cleaning is sufficient but a moist, fluff-free cloth or leather shammy may also be used. Do not use liquid cleaners or aerosol cleaners.
2. **Heat Sources -** Do not install the unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. **Ventilation -** Any openings in the unit enclosure are provided for ventilation to prevent overheating and ensure reliable operation. Do not block or cover these openings. Do not place the unit in an enclosure unless proper ventilation is provided, or the manufacturer's instructions have been adhered to.
4. **Water -** Do not use this unit near water, for example near a bathtub, washbowl, sink, laundry basket, in a damp or wet basement, near a swimming pool, in an outdoor installation, or in any area classified as a wet location. To reduce the risk of fire or electrical shock, do not expose this unit to rain or moisture.
5. **Object and liquid entry -** Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit. Do not place objects filled with liquids, such as vases or cups, on the unit.

6. **Lightning -** For added protection during a lightning storm, or when leaving this unit unattended and unused for long periods, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit from lightning and power line surges.
7. **Controls adjustment -** Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may cause damage to the unit. Use of controls or adjustments, or performance of procedures other than those specified, may result in hazardous radiation exposure.
8. **Overloading -** Do not overload outlets and extension cords. This can cause fire or electrical shock.
9. **Power supply cord and plug protection -** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, playing particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
10. **Power disconnect -** Units have power supplied to the unit whenever the power cord is inserted into the power source. The power cord plug is the main power disconnect device for switching off the voltage for the unit.
11. **Power sources -** Operate the unit only from the type of power source indicated on the label. Before proceeding, be sure to disconnect the power from the cable to be installed into the unit.
12. **Servicing -** Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
13. **Damage requiring service -** Unplug the power unit from the main AC power source and refer servicing to qualified service personnel when any damage to the equipment has occurred, such as:
    - the power supply cord or plug is damaged;
    - exposure to moisture, water, and/or inclement weather (rain, snow, etc.);
    - liquid has been spilled in or on the equipment;
    - an object has fallen into the unit;
    - unit has been dropped or the unit cabinet is damaged;
    - unit exhibits a distinct change in performance;
    - unit does not operate normally when the user correctly follows the operating instructions.
14. **Replacement parts -** Be sure the service technician uses replacement parts specified by the manufacturer, or that have the same characteristics as the original parts. Unauthorized substitutions could void the warranty and cause fire, electrical shock, or other hazards.
15. **Safety check -** Safety checks should be performed upon completion of service or repairs to the unit to ensure proper operating condition.
16. **Installation -** Install in accordance with the manufacturer's instructions and in accordance with applicable local codes.
17. **Attachments, changes or modifications -** Only use attachments/accessories specified by the manufacturer. Any change or modification of the equipment, not expressly approved by Bosch, could void the warranty or, in the case of an authorization agreement, authority to operate the equipment.

1.3 Important Notices

Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury and/or serious damage to the unit. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer. When a cart is used, use caution and care when moving the cart/apparatus combination to avoid injury from tip-over. Quick stops, excessive force, or uneven surfaces may cause the cart/unit combination to overturn. Mount the unit per the manufacturer's instructions.

All-pole power switch - Incorporate an all-pole power switch, with a contact separation of at least 3 mm in each pole, into the electrical installation of the building. If it is needed to open the housing for servicing and/or other activities, use this all-pole switch as the main disconnect device for switching off the voltage to the unit.

Battery replacement - For qualified service personnel only - A lithium battery is located inside the unit enclosure. To avoid danger of explosion, replace the battery as per instructions. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of the replaced battery in an environmentally friendly way and not with other solid waste. Refer all servicing to qualified service personnel.

Notice!

Batteries must not be disposed of in household waste. Dispose of batteries only at suitable collection points and, in the case of lithium batteries, mask the poles.

For further information refer to: http://www.BoschSecurity.com/standards

Caution!

Class I Laser Product

Invisible laser radiation when open. Avoid exposure to beam.

Coax grounding:

- Ground the cable system if connecting an outside cable system to the unit.
- Connect outdoor equipment to the unit's inputs only after this unit has had its grounding plug connected to a grounded outlet or its ground terminal is properly connected to a ground source.
- Disconnect the unit's input connectors from outdoor equipment before disconnecting the grounding plug or grounding terminal.
- Follow proper safety precautions such as grounding for any outdoor device connected to this unit.

U.S.A. models only - *Section 810* of the *National Electrical Code, ANSI/NFPA No.70*, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Disposal - Your Bosch product was developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances, which have reached the end of their working life, must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these units at an environmentally compatible recycling facility, per *European Directive 2002/96/EC*.

Caution!

Electronic Surveillance - This device is intended for use in public areas only.
U.S. federal law strictly prohibits surreptitious recording of oral communications.

Electrostatic-sensitive device - Use proper CMOS/MOS-FET handling precautions to avoid electrostatic discharge. NOTE: Wear required grounded wrist straps and observe proper ESD safety precautions when handling the electrostatic-sensitive printed circuit boards.
Environmental statement - Bosch has a strong commitment towards the environment. This unit has been designed to respect the environment as much as possible.
Fuse rating - For protection of the device, the branch circuit protection must be secured with a maximum fuse rating of 16 A. This must be in accordance with *NEC800 (CEC Section 60)*.
Grounding and polarization - This unit may be equipped with a polarized alternating current line plug (a plug with one blade wider than the other blade). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the polarized plug.
Alternately, this unit may be equipped with a 3-pole grounding plug (a plug with a third pin for earth grounding). This safety feature allows the plug to fit into a grounded power outlet only. If unable to insert the plug into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the grounding plug.
Moving - Disconnect the power before moving the unit. Move the unit with care. Excessive force or shock may damage the unit and the hard disk drives.
Outdoor signals - The installation for outdoor signals, especially regarding clearance from power and lightning conductors and transient protection, must be in accordance with *NEC725* and *NEC800 (CEC Rule 16-224* and *CEC Section 60)*.
Permanently connected equipment - Incorporate a readily accessible disconnect device external to the equipment.
Pluggable equipment - Install the socket outlet near the equipment so it is easily accessible.
Rack-mount (only DIVAR 5000 family)

- Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- Mechanical loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

SELV - All the input/output ports are Safety Extra Low Voltage (SELV) circuits. SELV circuits should only be connected to other SELV circuits.

Video loss - Video loss is inherent to digital video recording; therefore, Bosch Security Systems cannot be held liable for any damage that results from missing video information. To minimize the risk of lost digital information, Bosch Security Systems recommends multiple, redundant recording systems, and a procedure to back up all analog and digital information.

1.4 FCC and UL

FCC & ICES Information

(U.S.A. and Canadian Models Only)

This equipment has been tested and found to comply with the limits for a **Class B** digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a **residential installation**. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and the receiver;
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio/TV technician for help.

Intentional or unintentional modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such modifications could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

UL Disclaimer

Underwriter Laboratories Inc. ("UL") has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested fire, shock and/or casualty hazards as outlined in Standard(s) for Safety for Information Technology Equipment, UL 60950-1 . UL Certification does not cover the performance or reliability of the security or signaling aspects of this product.

UL MAKES NO REPRESENTATIONS, WARRANTIES, OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING-RELATED FUNCTIONS OF THIS PRODUCT.

2 System overview

The Bosch Video Recorder DIVAR 3000/5000 is a multi-channel digital recorder that uses the latest 960H high resolution technology, plus modern compression techniques. Simultaneous monitoring, recording, archiving and playback are guided remote or local by simple menu selections and operator commands. If required, a variety of optional storage capacities can be added (including built-in HDDs and/or a DVD writer).

The DIVAR 3000/5000 records multiple video and audio signals while simultaneously providing live multi-screen viewing and playback. Comprehensive search and playback functions provide quick recall and viewing of recorded video.

3 Quick install

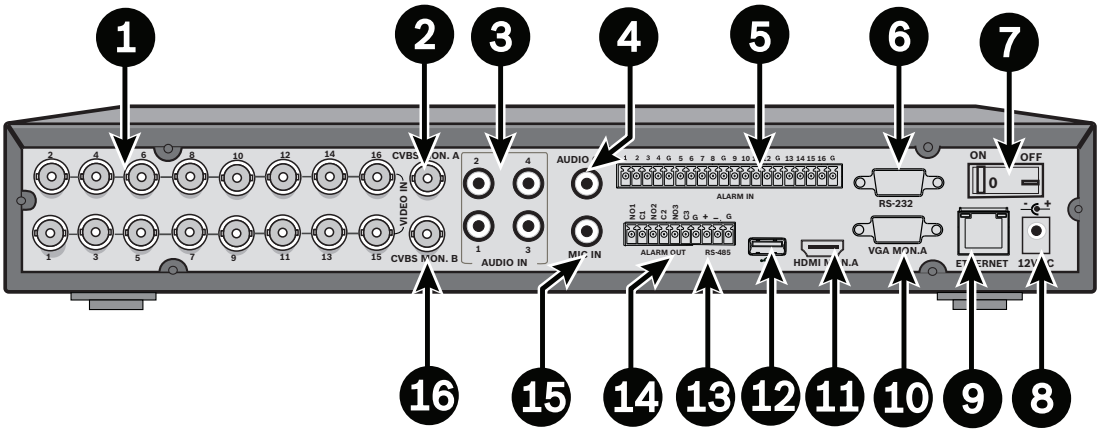
To get the unit operational, perform the following quick install steps:

1. Make all the hardware connections – see *Connections, page 10*.
2. Power up the system – see *Powering up, page 13*.
3. Log in – see *Login, page 14*.
4. Correctly configure your system software with the Startup wizard (this appears the first time the unit is started) – see *Startup Wizard, page 15*.

After completing this initial setup, the system is ready to run and will show a live view of the camera image(s). If required, you can alter the settings later using the menus and/or factory defaults, or you can run the Startup wizard again.

3.1 Connections

Connections on back of DIVAR 3000 (16-channel version)

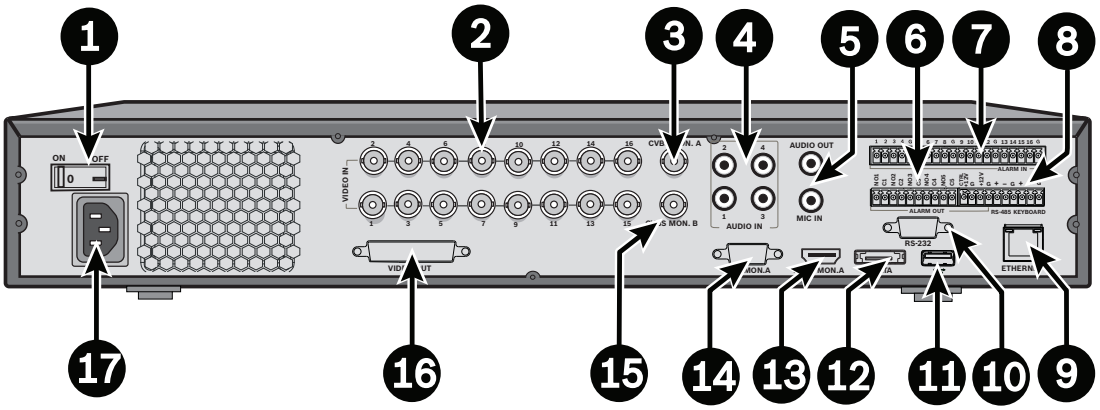


1	Camera VIDEO IN BNC connectors	9	RJ45 ethernet connector
2	CVBS output - Monitor A	10	VGA output - Monitor A
3	Audio inputs	11	HDMI output - Monitor A
4	Audio output	12	USB connector
5	Alarm inputs	13	RS485 connector for Dome control
6	RS232 connector for Dome control	14	Alarm outputs
7	Power ON/OFF switch	15	Microphone input
8	12 VDC Power connector	16	CVBS output - Monitor B

Notice!

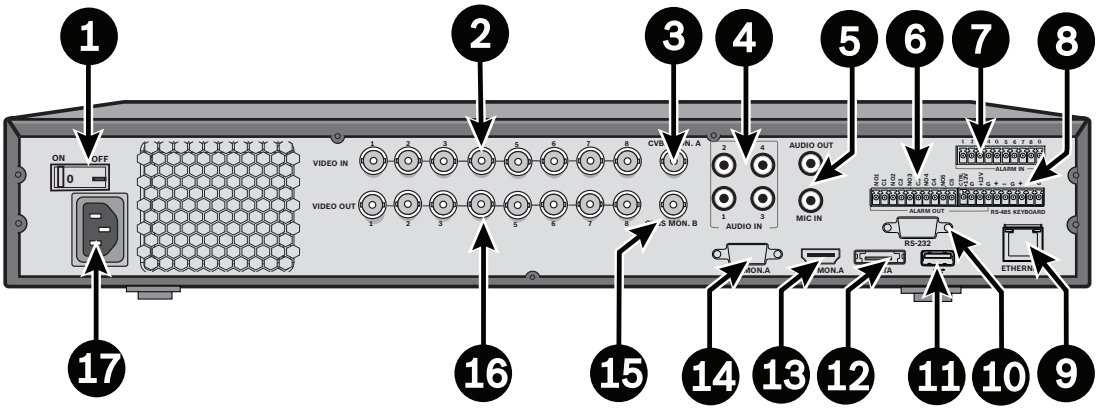
The 4- and 8-channel DIVAR 3000 models have a slightly different back panel. VIDEO IN connectors 5 to 16 for 4-channel (and VIDEO IN connectors 9 to 16 for 8-channel) are disabled.

Connections on back of DIVAR 5000 (16-channel)



1	Power ON/OFF switch	10	RS232 connector for Dome control
2	Camera VIDEO IN BNC connectors	11	USB connector
3	CVBS output - Monitor A	12	e-SATA connector
4	Audio inputs	13	HDMI output - Monitor A
5	Audio output and MIC IN connector	14	VGA output - Monitor A
6	Alarm outputs	15	CVBS output - Monitor B
7	Alarm inputs	16	VIDEO OUT connectors (loop through)
8	RS485 and keyboard connectors	17	Power connector
9	RJ45 ethernet connector		

Connections on back of DIVAR 5000 (4/8-channel)



1	Power ON/OFF switch	10	RS232 connector for Dome control
2	Camera VIDEO IN BNC connectors	11	USB connector
3	CVBS output - Monitor A	12	e-SATA connector
4	Audio inputs	13	HDMI output - Monitor A
5	Audio output and MIC IN connector	14	VGA output - Monitor A
6	Alarm outputs	15	CVBS output - Monitor B
7	Alarm inputs	16	VIDEO OUT (loop through)
8	RS485 and keyboard connectors	17	Power connector
9	RJ45 ethernet connector		

Notice!
The 4-channel DIVAR 5000 models have a slightly different back panel (VIDEO IN/OUT connectors 5 to 8 are disabled).

3.1.1 Primary connections

1. Connect the cameras to the **VIDEO IN** BNC connectors.
2. Connect monitor A to the **VGA MON A** output, or the **HDMI MON A** output, or the **CVBS MON A** output.
3. Connect the USB mouse to a **USB** port (front or back panel).

For first time use, the NTSC or PAL selection is determined by the camera type connected to VIDEO IN 1 in step 1. If no camera is connected to VIDEO IN 1 during first time use, the video standard is default and can be set in the Startup Wizard.

3.1.2 Optional connections

1. Connect monitor B to the **CVBS MON B** connector.
2. Connect up to 4 audio signals to the **AUDIO IN** RCA (CINCH) inputs.
3. Connect 1 microphone to the **MIC IN** RCA (CINCH) output.
4. Connect 1 **AUDIO OUT** RCA (CINCH) output to the monitor or an audio amplifier.
5. Connect up to 16 **ALARM IN** inputs (via the supplied terminal blocks).

6. Connect up to 6 **ALARM OUT** outputs (via the supplied terminal blocks).
7. Connect a pan/tilt/zoom control unit to the **RS-485** or **RS-232** port.
8. Connect to your network via the **ETHERNET** connector.
9. Connect extra video out cables to the **VIDEO OUT** ports if loop through is required to other devices (only for DIVAR 5000).
10. If required, connect a Bosch Intuikey keyboard cable to the **KEYBOARD** connector using the supplied adaptor (only for DIVAR 5000).

3.2 Powering up

For the DIVAR 3000:

1. Switch on all connected equipment.
2. Connect the supplied external power adaptor to the AC power outlet.
3. Connect the DC power cord to the **12 VDC** connector on the unit.
4. Turn on the unit power ON/OFF switch on the rear of the unit.

For the DIVAR 5000:

1. Switch on all connected equipment.
2. Connect the power cable to the AC power outlet.
3. Turn on the unit power ON/OFF switch on the rear of the unit.

3.3 Login

The system login interface is shown in the following figure:

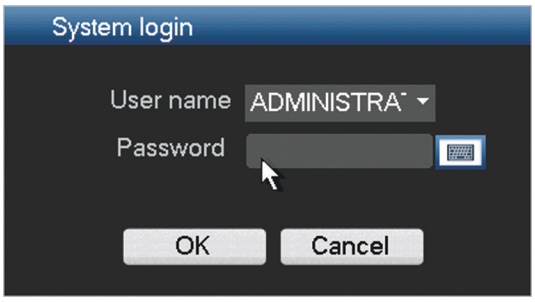


Figure 3.1: Login

When you startup the system for the first time, the Startup Wizard appears where you can setup the system software. Here the default User ID is **ADMINISTRATOR** and the default password is **000000** (six zeros).
Use the supplied USB mouse, front panel, remote control or keyboard (only on DIVAR 5000) to input data and commands. See the descriptions in User controls and menus for how to use the mouse, front panel and remote control.

Notice!
Unauthorized system use
For security reason, please alter your password after you first login.

Notice!
Account lock (only available in first release)
If you incorrectly login 5 consecutive times within a 30 minute period, the system will issue an alarm and the account is locked; you must wait 30 minutes again for the account to be unlocked.

When required, you can logout from the user interface using the Shutdown menu – see *Shutdown/Logout, page 20*.

3.4 Startup Wizard

The Startup Wizard opens automatically after you log in for the first time. See following screen:

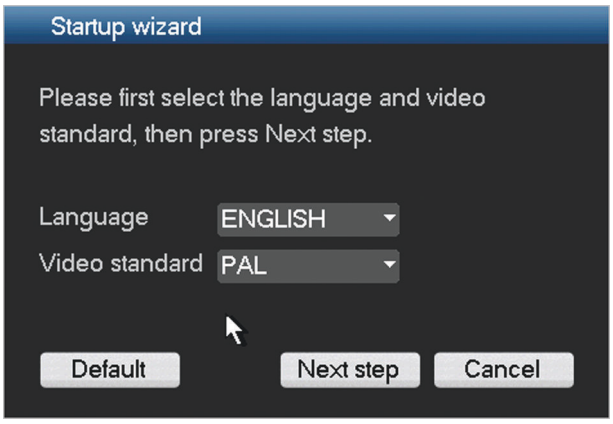


Figure 3.2: Startup wizard first screen

Select a language and video standard from the drop-down menus and click **<Next step>**. The wizard will guide you through the following steps:

1. Choose to reset the startup wizard to run after the next system restart – see *Reset startup wizard, page 16*.
2. Assign General settings – see *General, page 16*.
3. Assign Encoder settings – see *Encoder, page 17*.
4. Assign Schedule settings – see *Schedule, page 18*.
5. Assign Record settings – see *Record, page 18*.
6. Assign Network settings – see *Network, page 19*.
7. Finish the startup by clicking **<Finished>**.
8. Confirm the setup by clicking **<OK>**.

Use the following buttons to navigate through the wizard screens and assign your correct user settings:

- **<Cancel>** exit the Startup wizard and immediately access the DIVAR user interface (this action will automatically install all factory defaults for the remaining Startup wizard screens)
- **<Next Step>** go to the next wizard screen.
- **<Previous step>** return to the previous Startup wizard screen
- **<Default>** assign the factory defaults for the current setup screen
- **<Copy>** copy the current screen settings for a channel to other channels

3.4.1 Reset startup wizard

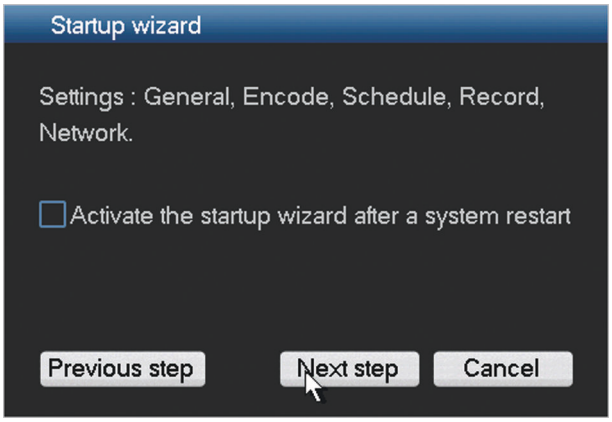


Figure 3.3: Startup wizard reset

If required, select the check box here to activate the Startup wizard after the next system restart (this is only useful if you need to reconfigure the system during the next startup). Later, during operation, you can also reset this mode in the **General** screen.
Click **<Next step>** for the next Startup wizard screen (**General** settings).

3.4.2 General

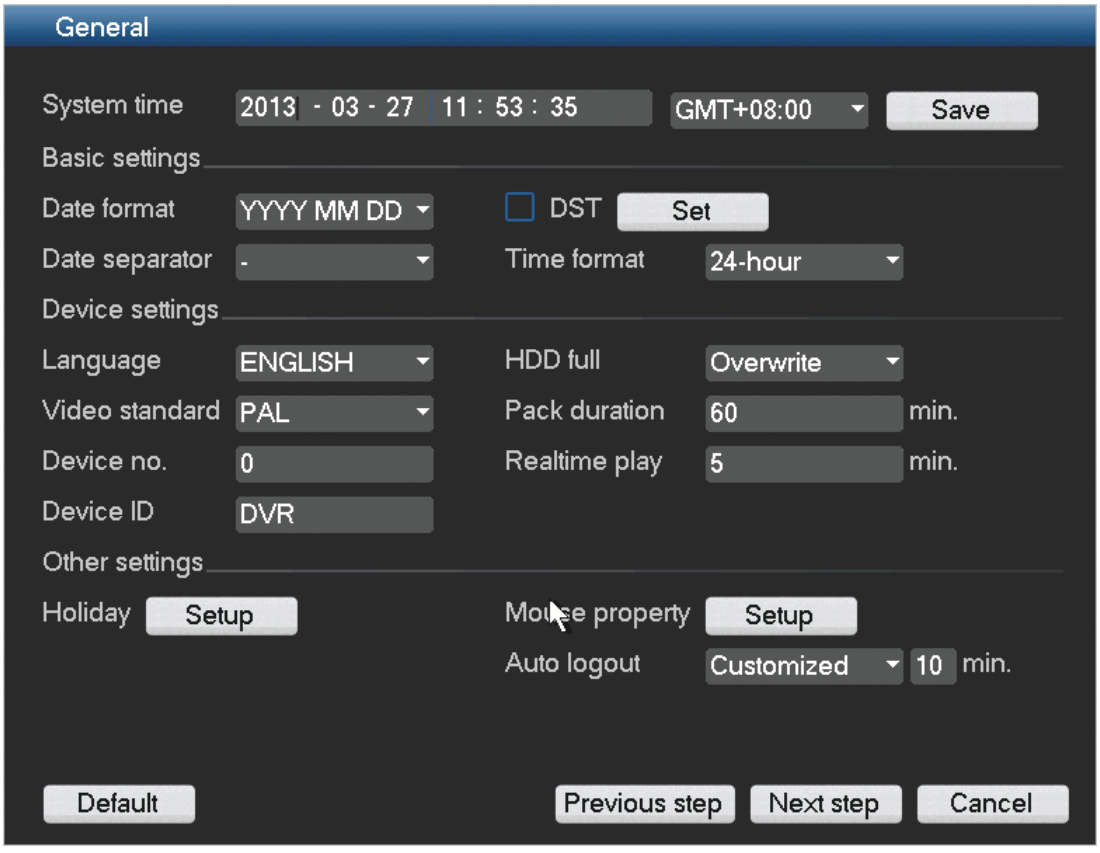


Figure 3.4: Startup general

Check the general settings on this screen:

– If they are correct, click **<Next step>** to go to the next Startup wizard screen (**Encoder** settings).

– If changes are required, use the drop-down menus and entry fields to assign the correct settings (if you change the system time and/or date, click **<Save> before continuing).**
– When ready, click **<Next step>** to move to the **Encoder** Startup wizard screen.

3.4.3 Encoder

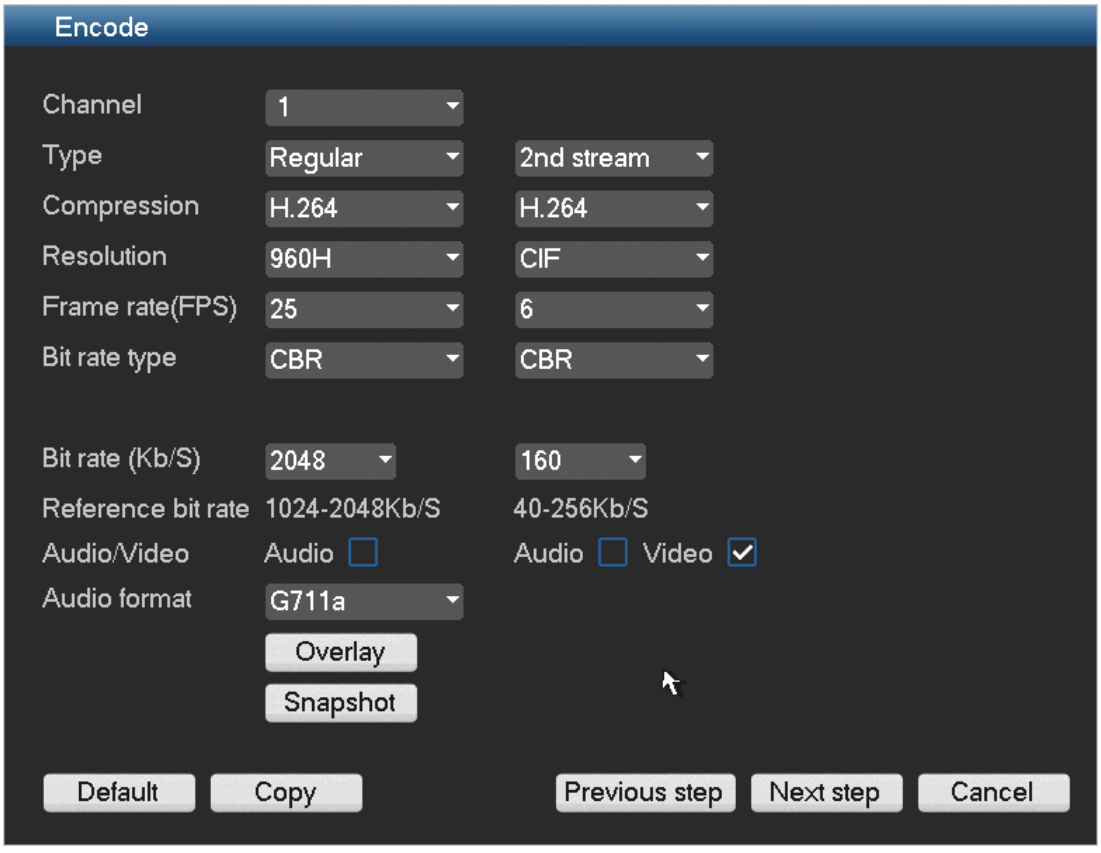


Figure 3.5: Startup encode

Assign here the encoder settings and click **<Next step>** for the next Startup wizard screen (**Schedule** settings). To save time when setting up channels, use **<Copy>** to copy settings from one channel to other(s).

3.4.4 Schedule

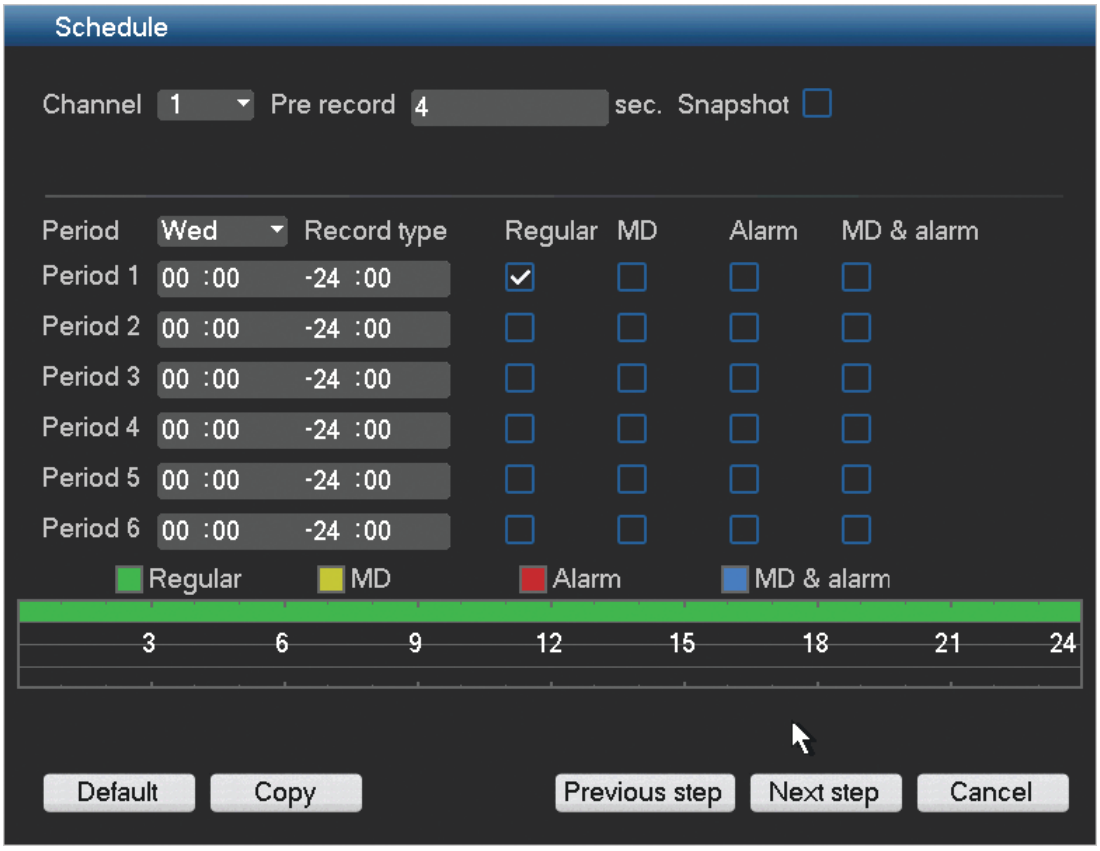


Figure 3.6: Startup schedule

Assign here all the schedule settings and click **<Next step>** for the next Startup wizard screen (**Record** settings). Use **<Copy>** to copy settings from one channel to other(s).

3.4.5 Record

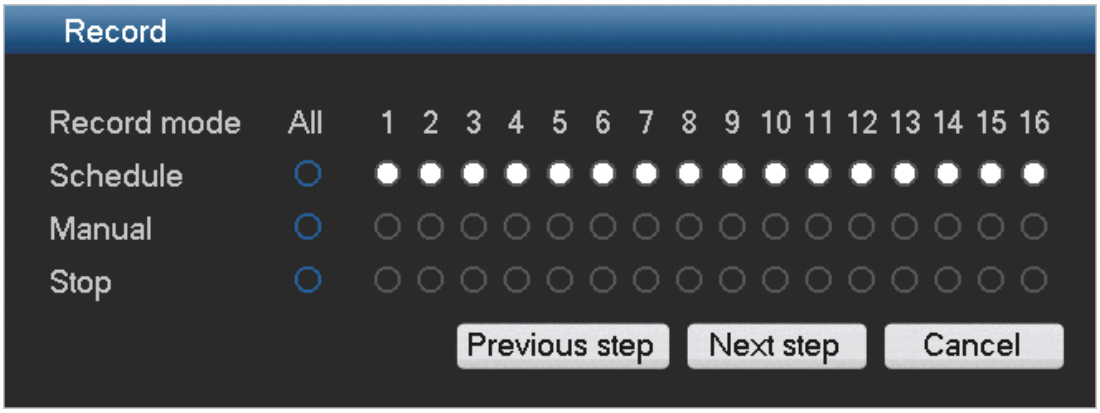


Figure 3.7: Startup Record

Assign here all the record settings and click **<Next step>** for the next Startup wizard screen (**Network** settings):

- Schedule: The selected channels will record according to the schedule setup (see previous setup screen)
- Manual: selected channels will automatically begin recording
- Stop: No recording on the selected channels

3.4.6 Network

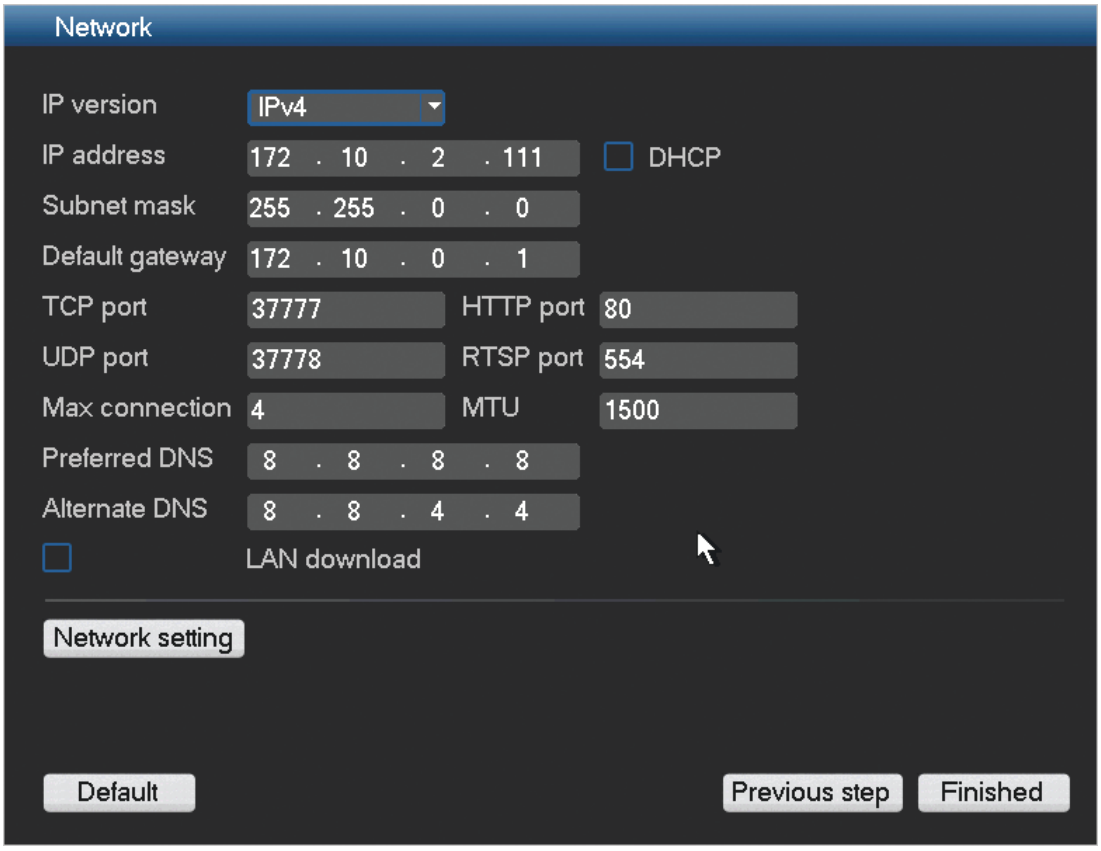


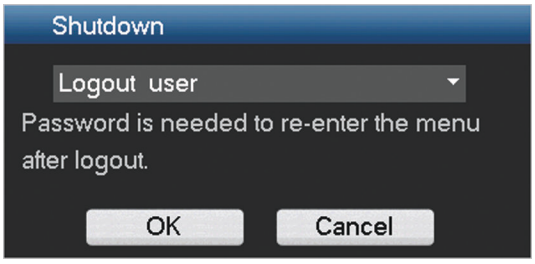
Figure 3.8: Startup network

Assign here all the network settings and click **<Finished>** to complete the Startup wizard (you will need to confirm the setup by clicking **<OK>**).
The system will automatically display the active view mode (with a maximum 16 camera views). From here you can operate your system using the mouse, remote control or front panel. See the following sections.

When you eventually need to log off from your system (or shut down completely), use the Shutdown menu – see *Shutdown/Logout, page 20*.

3.5 Shutdown/Logout

1. Right-click the mouse to access the **Quick menu**; from here choose the option **Main menu**.
2. Select **<Shutdown>** on the main menu for the Shutdown dialog box.
3. Choose **Logout user** from the drop-down options.
4. Click **<OK>.**



Other options on the drop-down menu are:

– **Shutdown**
– **Restart system**
– **Switch user**.

Logout with power button

Another way to stop all operations is:

1. Press the power button on the front panel for at least 3 seconds.
2. Switch off the power button in the rear panel to turn off the DVR.

Start up the system again by turning on the power button on the rear panel – a new login screen will appear.

Auto Resume after Power Failure

The system will automatically backup video recordings and resume the previous working status after a power failure.

4 First time operation

Once the Startup Wizard steps have been completed, your monitor will show the normal live mode with real time camera displays ready to operate your system.
From here, you can control your system via menus (**Quick menu** and **Main menu**) using the mouse, front panel buttons or the remote control.

Notice!
The mouse is normally the preferred input device when setting up the system and entering field values. Clicking the right mouse button is the quickest way to select and leave menus.

See the following descriptions:
- *Live viewing, page 21*
- *Quick menu, page 24*
- *Main menu, page 27*
- *Mouse controls, page 25*

For a detailed description of configuring and operating the system (plus all technical specifications), refer to the Operator Manual on the supplied DVD.

4.1 Live viewing

After you log in, the system is in live viewing mode with 1 to 16 camera images on the display. See following example view.

Figure 4.1: Live view (4 camera views displayed)

This is the normal operating mode of the unit where live pictures are viewed from a maximum 16 connected cameras.
The system date and time is displayed in the top right corner of the screen, and the channel ID is shown in the bottom left of each channel display.
- To change system date and time, see general settings (**Main Menu > Setting > General**).

– To modify the channel ID, see display settings (**Main Menu > Setting > Display**).

Each channel view has one or more of the following icons displayed:

	Recording – this icon is displayed when a channel is recording			**Camera masking** – the camera has been blocked
	Motion detection – a movement has been detected in the camera view			No camera is attached to this channel or communication has been lost from this camera
	PTZ active If your camera is equipped with a PTZ function, you can pan, tilt and zoom the live viewing image as described in the PTZ function.			

If multiple channels are displayed, you can double-click on a particular channel to show this channel in full-screen (double-click on it again to return to multiple-channel view). The currently selected channel is shown with a yellow border. From live mode, you can switch to playback mode or access the main menu as described below.

Changing the display

1. Bring up the Quick menu.
2. Select View 1, 4, 8, 9 or 16 and choose the corresponding Camera configuration.

Other functions in Live mode are:

– Playback and zoom
– PTZ
– Sequence

Access to these functions requires the correct user level. Check with your administrator if you do not have access.

Playback and Zoom

Move the mouse to the top centre of the video of the current channel; the system pops up the playback and zoom interface. See following figure.

Figure 4.2: Playback and zoom

If your mouse stays inactive in this area for more than 6 seconds, the control bar automatically disappears. See the following table for detailed information on the two preview control buttons.

	Icon name	Function
	Realtime playback	Press to playback the previous 5-60 minutes recorded on the current channel (default is 5 minutes): The playback screen supports drag and play function - use your mouse to drag the play bar to any playback start time. Use the pause and exit functions as required. During the preview playback process – you can not see the channel title and record status of current channel (they only reappear once you exit preview playback) – you can not switch the displayed channel or change current window-display mode To set the **Realtime play** time, go to **Main Menu > General**. Note: The system may pop up a dialog box if there is no recorded data in the current channel.
	Digital zoom	Zoom in on a specified zone of current channel (zoom-in function is supported in multiple-channel view). When you click on the zoom icon it will change to a new icon ; you can now select an area by holding down the left mouse button and dragging an area on the screen. Release the mouse and the selected area will be zoomed. Right-click the mouse to exit the zoomed area. Exit the digital zoom function at any time by clicking on the icon again – it will change back to .

4.2 Quick menu

When in normal view mode, right-click the mouse for the following quick menu:

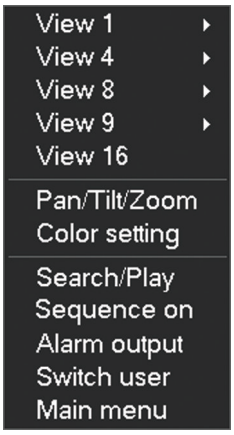


Figure 4.3: Quick menu

Here you can select:

- **View 1, 4, 9, 16** – choose here to view one-window, four-windows, nine-windows or sixteen-windows
- **Pan/Tilt/Zoom** – only possible if you have a PTZ camera attached and configured
- **Color setting** – to change the color/hue/brightness of the viewed camera images
- **Search/Play** –searching for records, and playing/exporting them
- **Sequence on** – activate a camera tour sequence (to disable the tour, access Quick Menu again and select 'Sequence off')
- **Alarm output** – access the alarm output screen to configure the alarm output relays
- **Switch user** –activate the Login screen where you can login as a different user
- **Main menu**

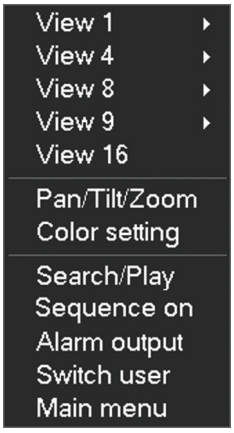
Notice!

Pan/Tilt/Zoom and color settings in multi window mode

The Pan/Tilt/Zoom and Color setting applies for the currently selected channel. If you are in multiple-window mode, the system automatically switches to the corresponding channel.

4.3 Mouse controls

Mouse	Function
Left button	In **Live** mode, click once to select channel and choose other functions
	In the **Quick menu**, use the left mouse button for the following options: – Go to the main menu (after selecting a menu item, left click again to view menu content and make selections) – Modify a checkbox or motion detection status
	When inputting data, one of the following input keypads appears (depending on whether you need to enter alphanumeric or only numeric characters): Left click the corresponding button on the keypad to input the required characters (use Shift on alphanumeric keypad to switch between small/ capitalized)
Double-click left button	Implement a special control operation, e.g. double click an item in the file list to play the video
	In **multiple window** mode, double-click one channel to view in full-window mode; double-click current video again to go back to previous multiple window mode
Drag mouse with left button pressed	Select motion detection zone
	Select privacy mask zone.
Middle scroll wheel	In numeral input box, increase or decrease numeric value
	Switch items in a check box
	Page up or page down in a list

Right button	In **Live** mode, the following quick menu appears: 
	If you are currently in a menu, right-click to exit the current menu without saving any modifications.

4.4 Main menu

Access the Main menu as follows:

– Use the Enter key and the direction buttons on the front panel or the remote control
– Right-click the mouse for the Quick menu and select '**Main menu**'

The Main menu has six menu selections, each with further submenus. See following figure.

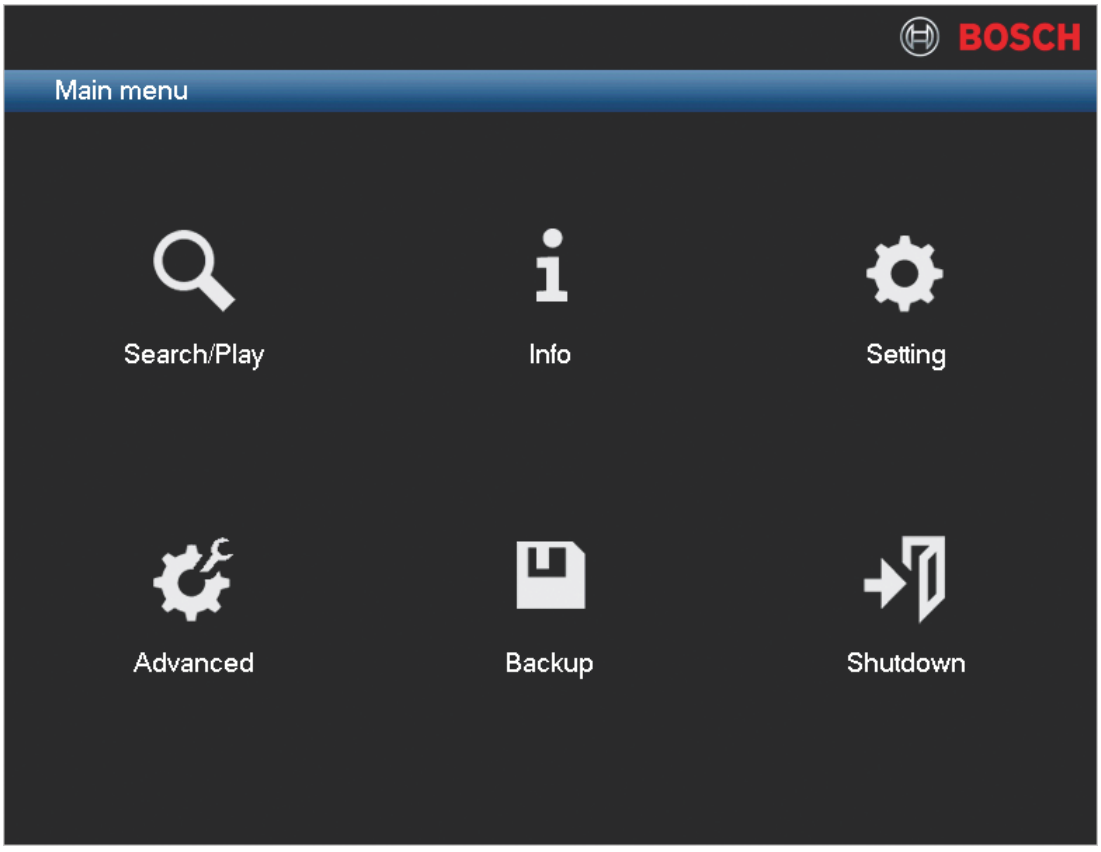


Figure 4.4: Main menu

Move through the Main menu items and select the required sub-menu:

– **Setting** and **Advanced** are used for system configuration
– **Search/Play** is used to search for and play recordings
– **Info** shows relevant system status information
– **Backup** is used to backup your system files
– **Shutdown** is used to logoff and shutdown your system

4.5 Search/Playback

Click **Search/Play** in the Main Menu (or from the Quick menu) for the following interface. See following figure

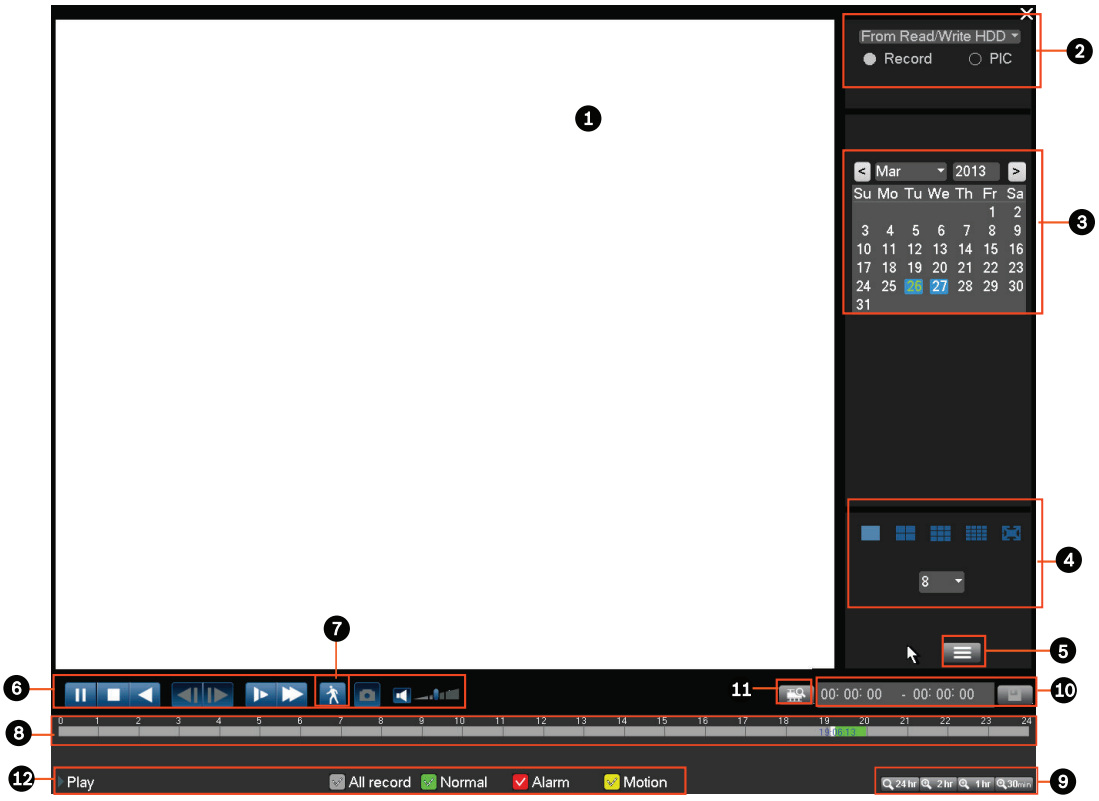
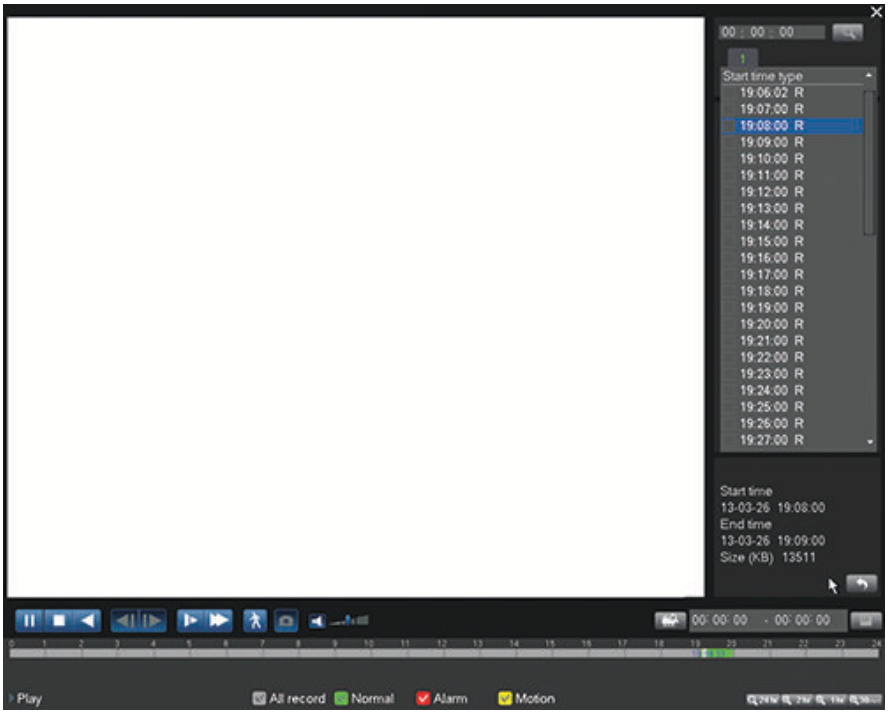
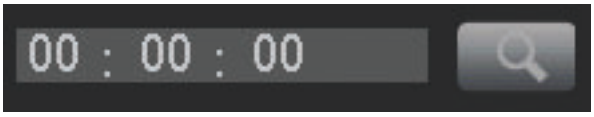


Figure 4.5: Search/Play screen

ID	Name	Function
1	Display window	Display of the currently chosen picture or file (supports 1/4/9/16-window playback.)
2	Search type	Here you can select to search for a picture (PIC) or a recorded file (REC). Select to play from the read-write HDD or an optional connected external device.
3	Calendar	If a date is highlighted blue then a picture or file is available for that date. When in play mode, click the required date to see a trace of all recorded files (or pictures) in the time bar on the bottom of the page.

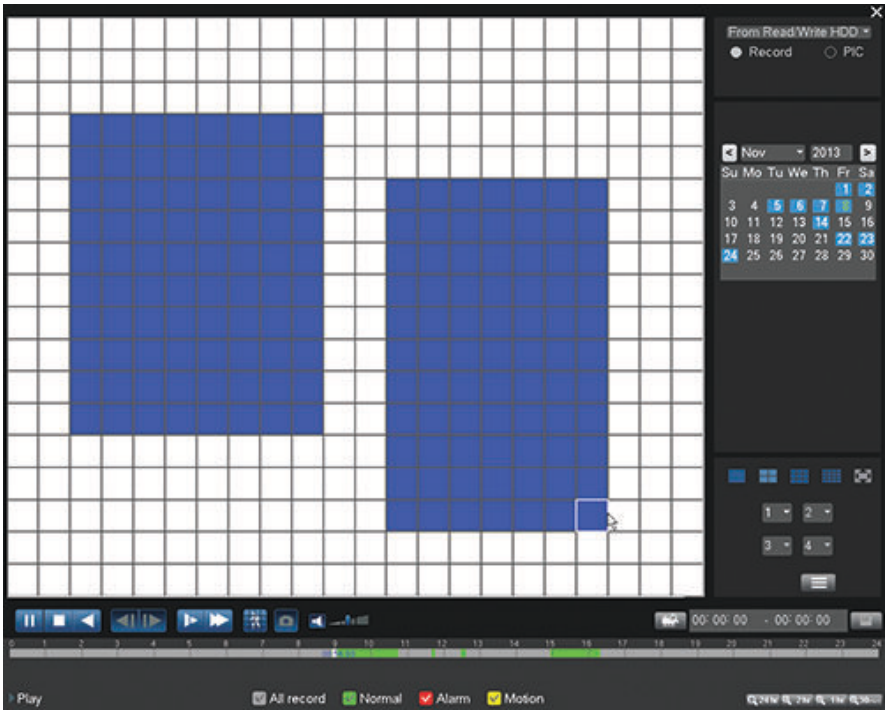
4	Playback mode and channel selection pane	Playback mode : 1/4/9/16. (choose the required icon) – In 1-window playback mode: you can select 1-16 channels from the drop-down menu – In 4-window playback mode: you can select 4 channels according to your requirements. – In 9-window playback mode, you can switch between 1-8 and 9-16 channels. – In 16-window playback mode, you can switch between1-16 and 17-32 channels. The time bar changes if you modify playback mode or channel option.

<table>
<tr><td>5</td><td>File list</td><td colspan="2">Double click to view a list of recorded files for the selected day.
 

The file list displays the first channel of the recorded file (click the numbers above to select another channel). The system can display max 128 files at one time. Click once on a file to view the file details under the list, or double click a file to playback the file on the screen. You can also select the checkbox beside file(s), then select the ‘Save’ button to save files to a device (see description below for ‘Save’).
The character shown beside each file has the following meaning:
– R–Regular record
– A–external Alarm record
– M–Motion detect record
For a precise search for a time period, stop the current file being played and enter a period in the time panel (shown above the list):
 

When ready, return to the original calendar and channel setup interface by clicking </td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Play/ Pause</td><td> </td><td>Play or Pause (the ‘pause’ button is displayed if the DVR is already playing and you wish to pause the play)
There are three ways for you to begin playback.
– The play button
– Double click a valid period in the time bar
– Double click a file in the file list</td></tr>
<tr><td> </td><td>Stop</td></tr>
</table>

	Backward play In normal play mode, left click the button, the file begins backward play. Click it again to pause current play. In backward play mode, click to restore normal play.
 	In playback mode, click to play the next or the previous section (click continuously to watch consecutive files from the same channel. In normal play mode, press pause then click and to begin frame-by-frame playback. In frame-by-frame playback mode, click to restore normal playback.
	Slow play In playback mode, click for various slow play modes such as slow play 1, slow play 2, etc.
	Fast forward In playback mode, click to realize various fast play modes such as fast play 1, fast play 2, etc.
	Smart search – see description below
	The audio volume for the video playback
	Click in full-screen mode to snapshot 1 picture per second.
Digital zoom	When the system is in playback mode: 1. Left-click the mouse in the screen and hold down the mouse button. 2. Drag to select a section then release the mouse button. 3. Left-click in the selection for digital zoom of the selection. 4. Right-click to exit zoom.

7	Smart search	This function is only active when the system is playing a recording in full-screen mode. Click to activate smart search. See following figure.  Use your mouse to drag and select zone(s) in the window to detect motion. Click again to begin smart search. The system searches for motion in the chosen area(s). When ready, click again to stop smart search playback. Extra notes on smart search: – As default, the system will view the whole play zone as a motion detect region. – If you choose to play another file in the file list, the system will switch to motion detect play of the other file. – During motion detect play, you cannot implement operations such as changing the time bar, play backward, or play frame-by-frame. – System supports 396 (22x18 PAL) and 330 (22x15 NTSC) zones.

8	Time bar	Display the record type and the period for the current search criteria. In 4-window playback mode, there are four corresponding time bars. In other playback modes, there is only one time bar. Click on a point in a colored zone in the time bar to begin playback at that point. When you first open Search/Play, the time bar begins at 0:00 hour, and will zoom to the period of the current playback when playing the file. The bar colors are: – Green for a regular record file – Red for an external alarm record file – Yellow for a motion detect record file If required when playing a record, use the time bar unit to zoom in (see the following description).
9	Time bar unit	The option includes: 24H, 12H, 1H and 30 minutes (the smaller the unit, the higher the zoom rate). This helps you to precisely locate a time in the time bar when playing a record.
10	Save	Use to save/backup selected file(s) from the file list onto a memory device (HDD, USB stick) as follows: Click the save button for the backup menu (here you can choose a memory device for the backup). View the selected files to be saved (if required, click a file again to cancel backup selection). Click the start button to begin backup. The system supports a max backup of 32 files from one channel (and from max four channels).
11	Clip	Use to edit a file. 5. Play the file to be edited and then click this button at the point you want to edit... 6. Wait for the slide bar in the time bar of the corresponding channel. 7. Adjust the slide bar or input a time to set the file end time. 8. Click this button again to stop edit and then save current contents in a new file.
12	Record type	This status line will change to show the current play mode (or pause) and a checked box beside the scheduled record type (Motion, Alarm, Normal, All).

5 Maintenance

Maintenance of this unit is limited to external cleaning and inspection, plus installing or replacing the internal lithium battery, the HDD or the DVD.
The following figures show the DIVAR 3000 and the DIVAR 5000 (with top covers removed) and installed positions of the battery (1), DVD (2) and HDD (3):

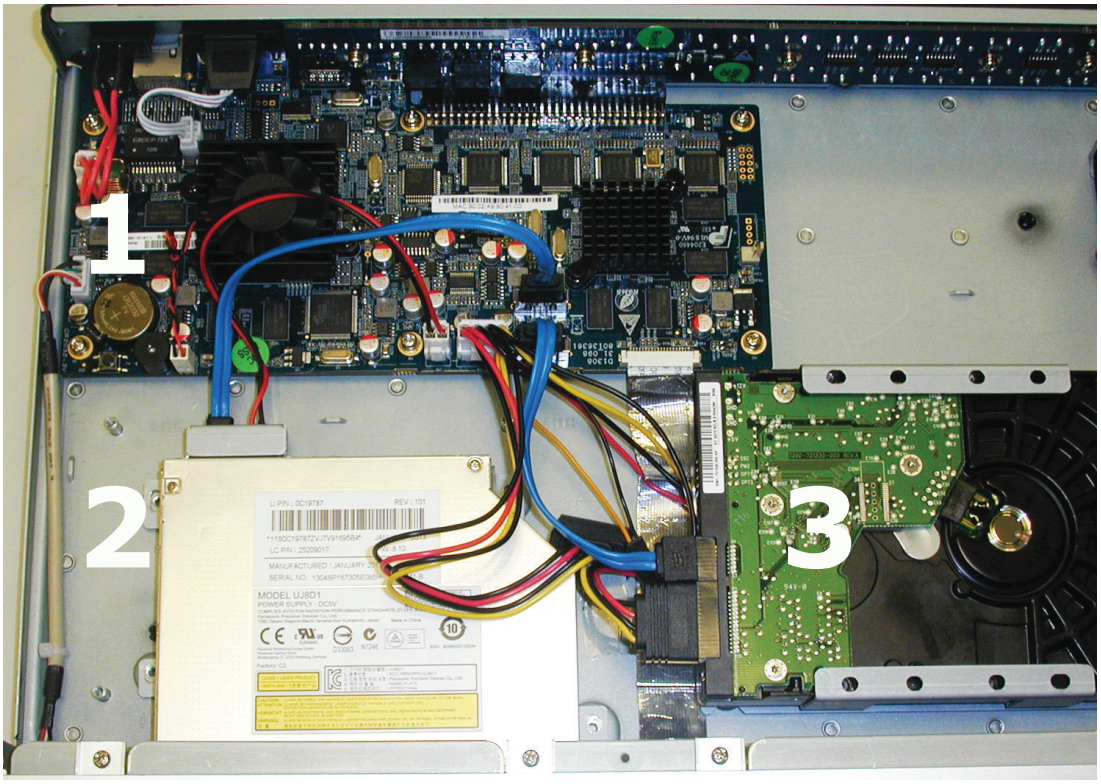


Figure 5.1: DIVAR 3000 HDD and DVD installed

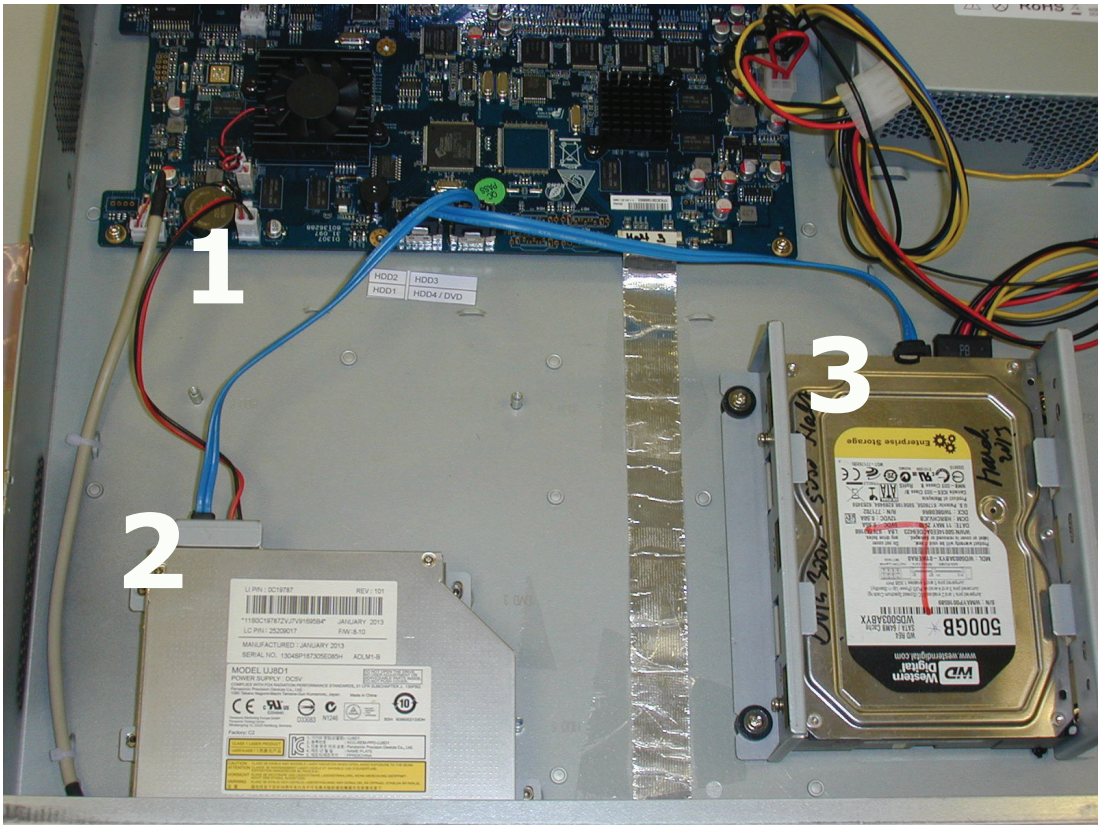


Figure 5.2: DIVAR 5000 DVD and HDD installed

See the following descriptions for installing these components:

- *Replace internal battery, page 37*
- *Install HDD in DIVAR 3000, page 38*
- *Install HDD in DIVAR 5000, page 41*
- *Install DVD in DIVAR 3000, page 45*
- *Install DVD in DIVAR 5000, page 47*

Refer to the Appendix in the Operator Manual for recommended DVD and HDD types.

Precaution – electrical voltage

Danger!

Electrical voltage. Risk of electric shock.

When opening the top cover to service the unit, always make sure that the power has been switched off and the power cable is disconnected.

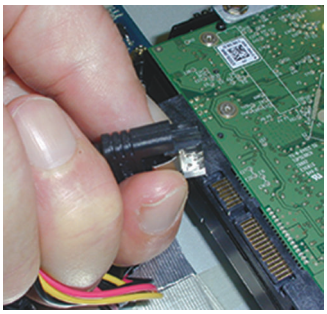
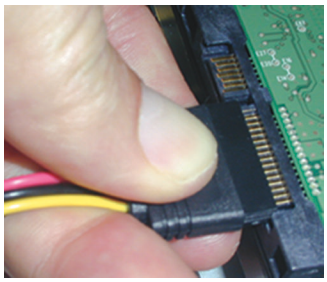
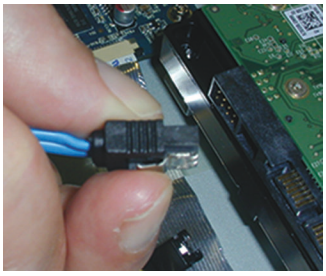
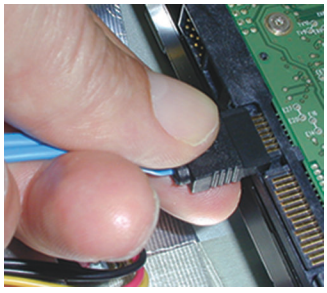
Precaution – connector damage

Caution!

Possible connector damage

When the DIVAR cover is removed for installing replacing or repairing internal components (battery, HDD or DVD), always make sure you wear an approved ESD wrist strap – see *Attach ESD strap, page 37*.

Notice also that some cables for both the DIVAR 3000 and DIVAR 5000 have a lock which must be pressed and held when inserting/removing the cable. See following figures.

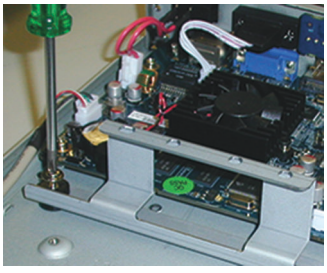
	
Press pin	Hold pin and connect cable
	
Press pin	Hold pin and connect cable

Precaution – processor/wiring damage

Caution!

Possible processor/wiring damage

When installing/removing a DVD/HDD, be careful that you do not damage vulnerable components (e.g. when using a screwdriver, make sure it cannot slip off the screw and damage the processor or wiring). See following figures.

5.1 Attach ESD strap

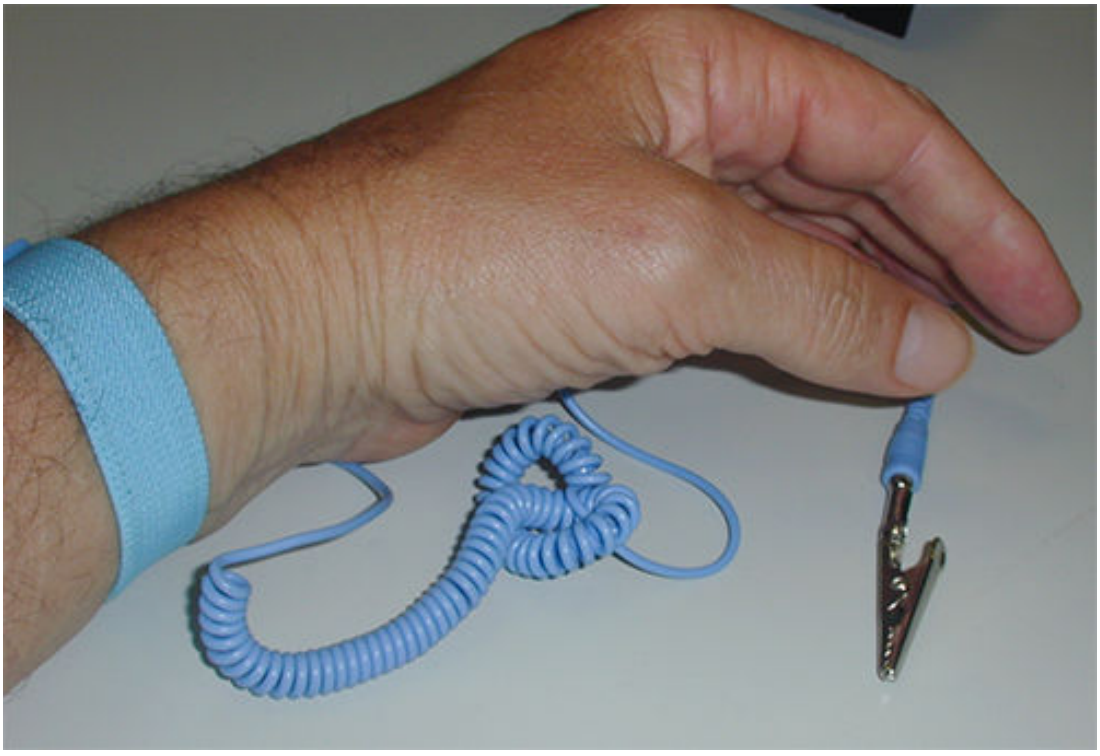


Figure 5.3: ESD strap

The ESD strap is vital to prevent damage to ESD-sensitive parts when maintaining components in an opened DVR cabinet.

Always attach the ESD strap around your wrist as follows:

1. Slide the expandable strap over your wrist.
2. Connect the clip on the flexible grounding cord to an unpainted ground point (or to an approved ground point).
3. Keep the strap on and connected while you touch, insert, or remove any ESD-sensitive part.

5.2 Replace internal battery

This product uses a 3.0 V Lithium CR2032 battery (article number F01U099057) as the backup power supply for internal system status (e.g. real time clock).

Under normal circumstances this battery will last for a minimum of 5 years. Low battery power affects the DVR operation causing it to reset at every power-up. A log message appears when the battery needs replacing (it should not be replaced unless required).

If the battery needs replacing, contact Bosch for assistance. Take note of the following precautions:

- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same battery type (or equivalent).
- Dispose of used batteries according to the manufacturer's instructions.

5.3 Install HDD in DIVAR 3000

This DVR can fit a maximum two SATA HDDs.
See the following components and steps for installating HDD 1 (brackets and screws included in package):

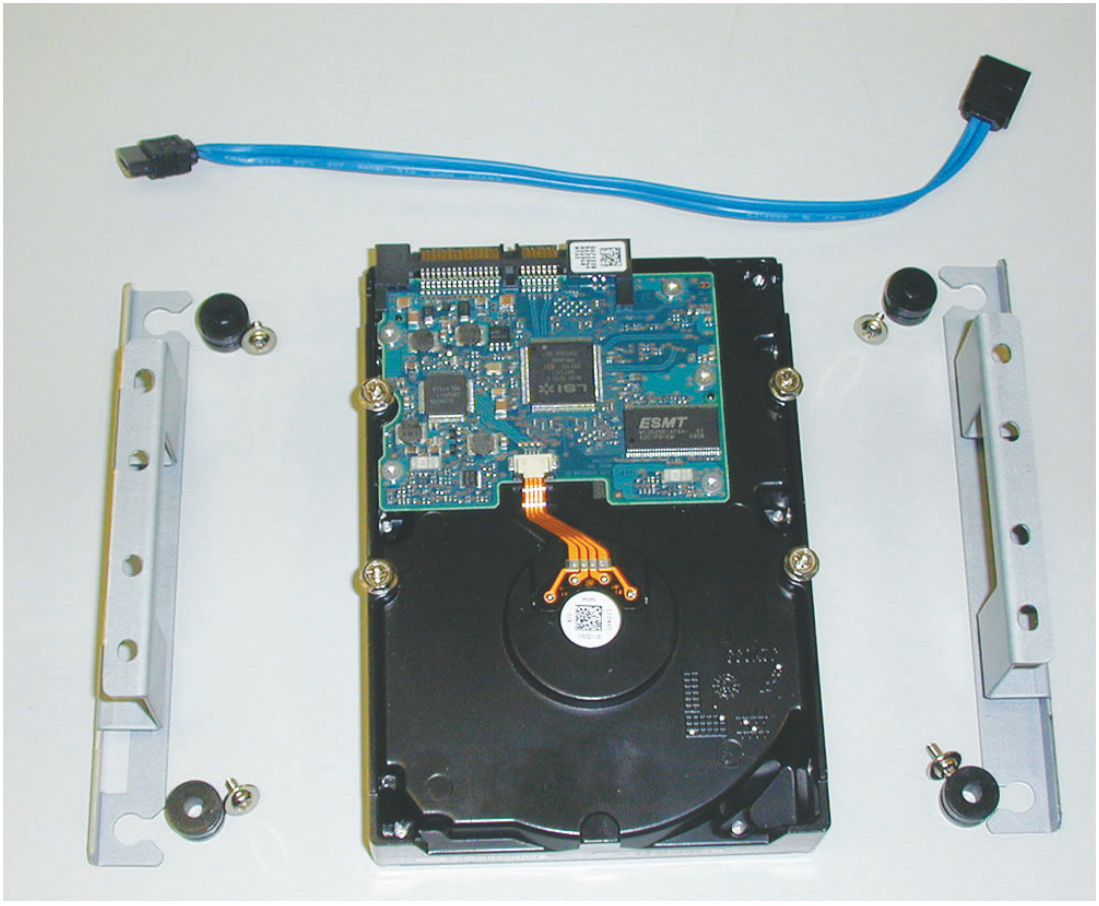


Figure 5.4: Install HDD 1 (DIVAR 3000)

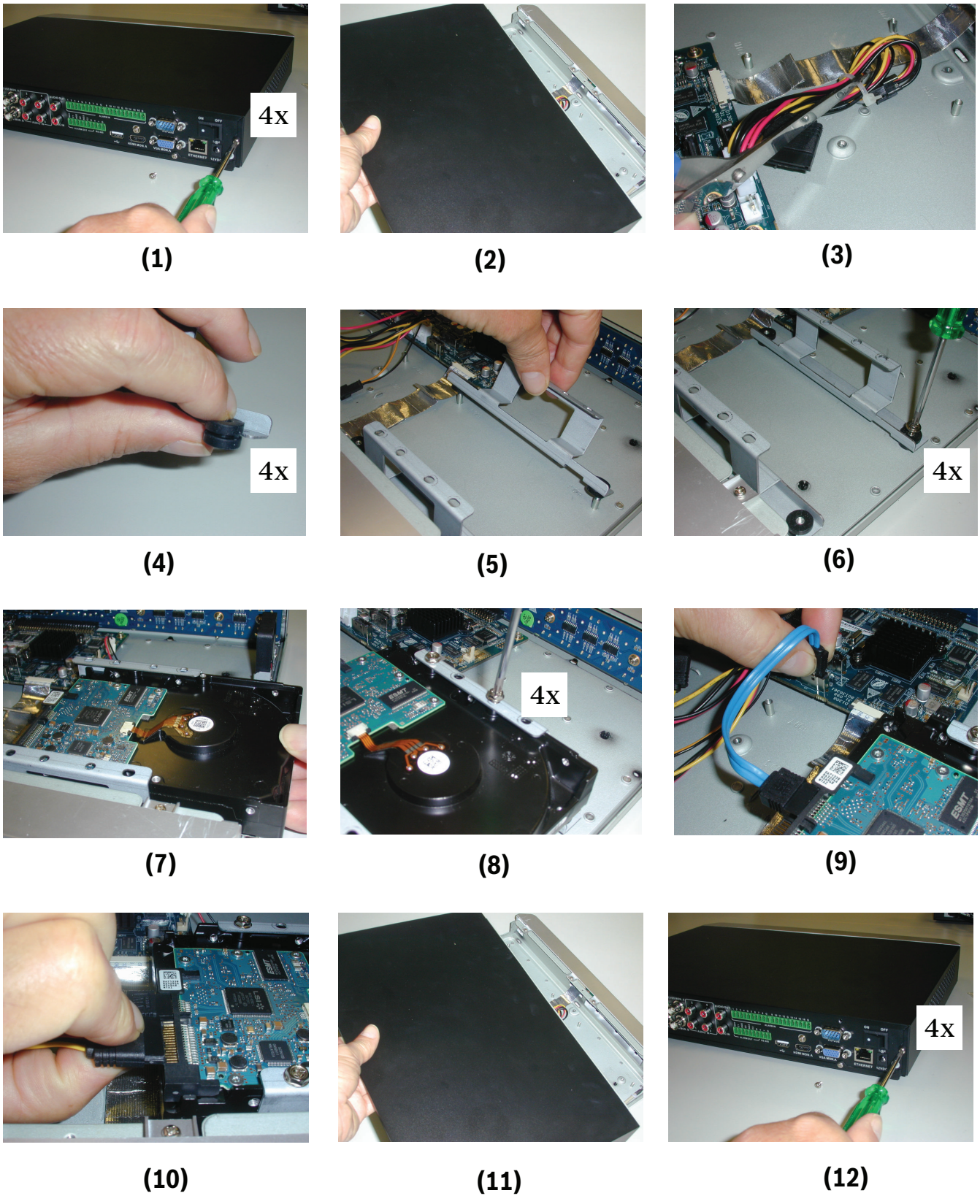


Figure 5.5: Install HDD 1

Install HDD 2

Install HDD 2 in the position of the optional DVD – see following figure:

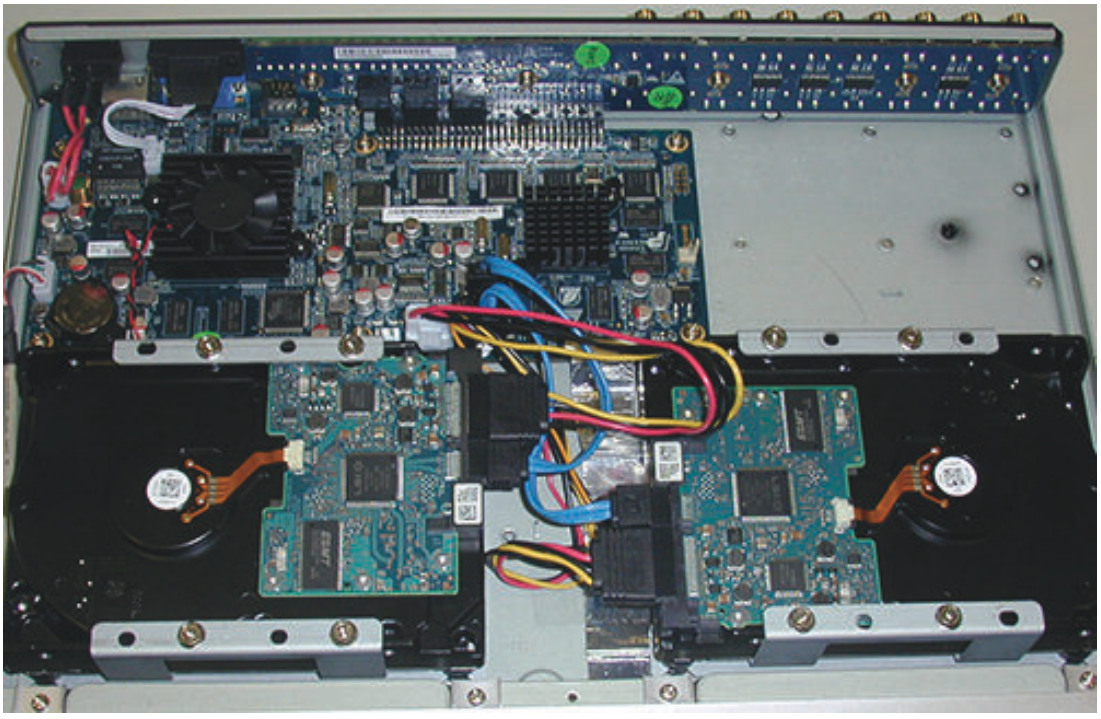


Figure 5.6: Install HDD 2

Use the same install steps described for installing HDD 1.

5.4 Install HDD in DIVAR 5000

See the following components and steps for installing HDD 1 (brackets and screws included in package):

Figure 5.7: HDD install components (DIVAR 5000)

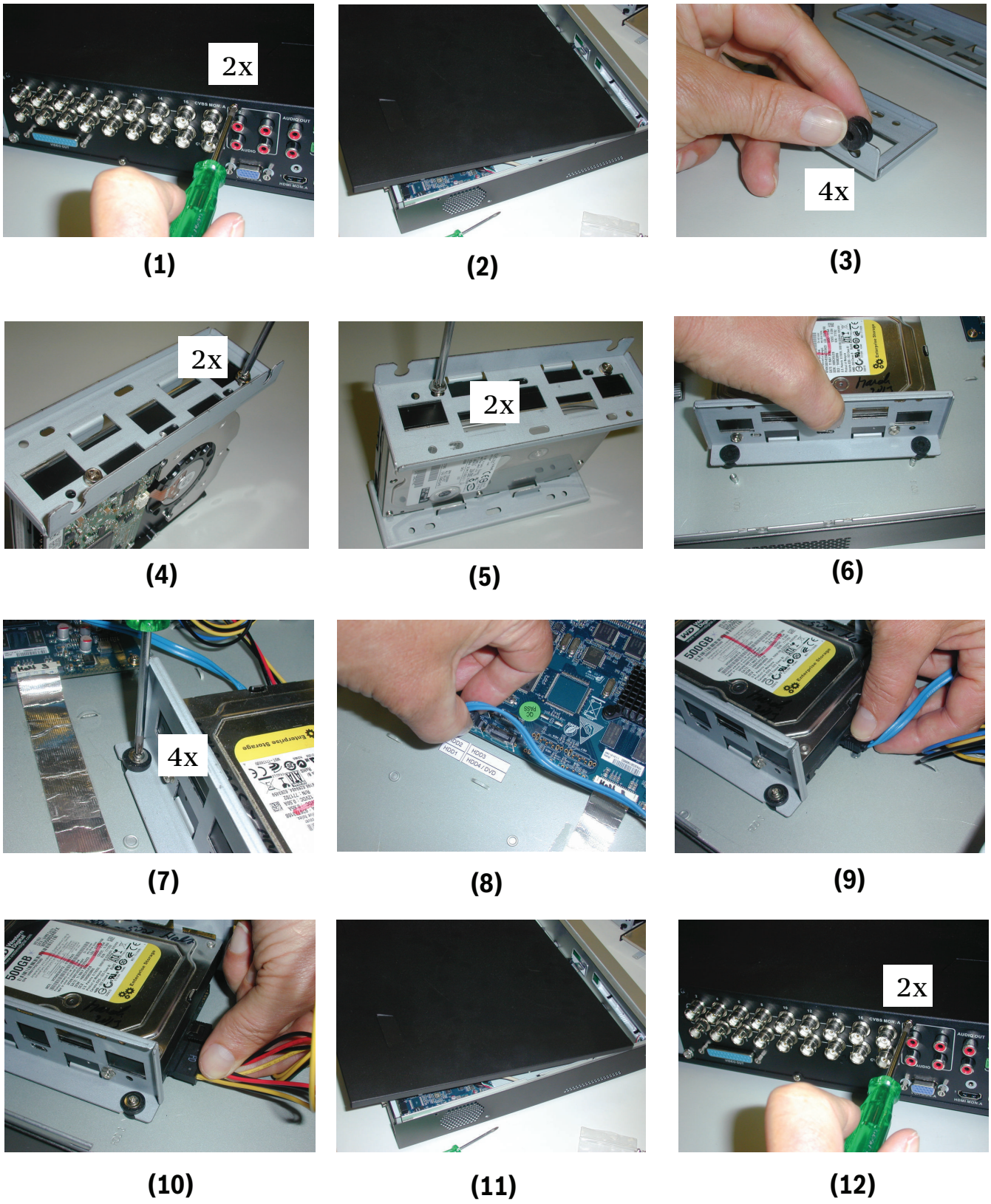
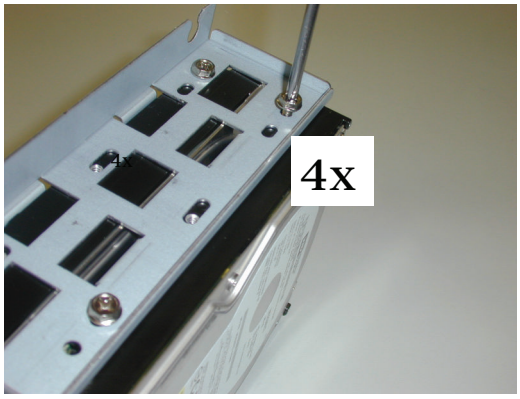


Figure 5.8: Install HDD 1

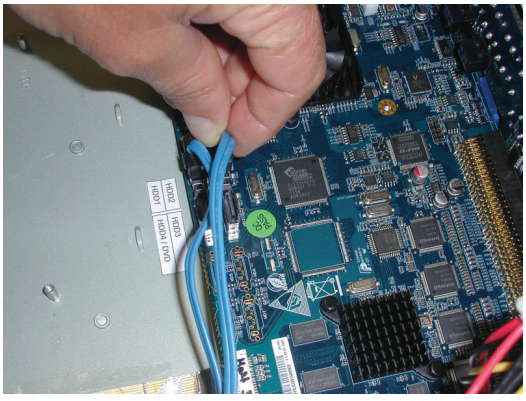
Install HDD 1 and 2

Use the same procedure as for installing HDD 1, but include the following extra steps:

(5a)

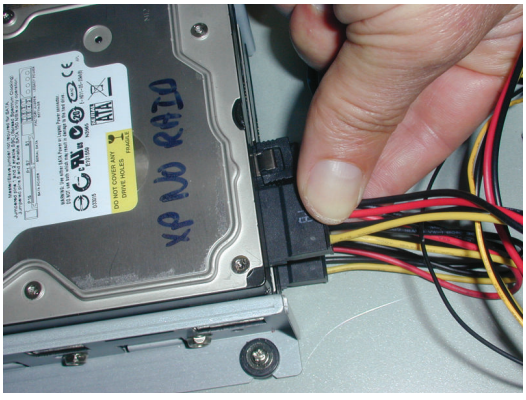


(5b)



(8a)

(8b)



(10a)

Figure 5.9: Install HDD 1 and 2

Install HDD 3 and 4

Use the same install steps as for HDD 1 and 2, but install HDD 3 and 4 at the optional DVD location. See following figure.

Figure 5.10: Install HDD 3 and 4

5.5 Install DVD in DIVAR 3000

See the following components and steps required for this installation (screws included in package):

Figure 5.11: Install DVD components (DIVAR 3000)

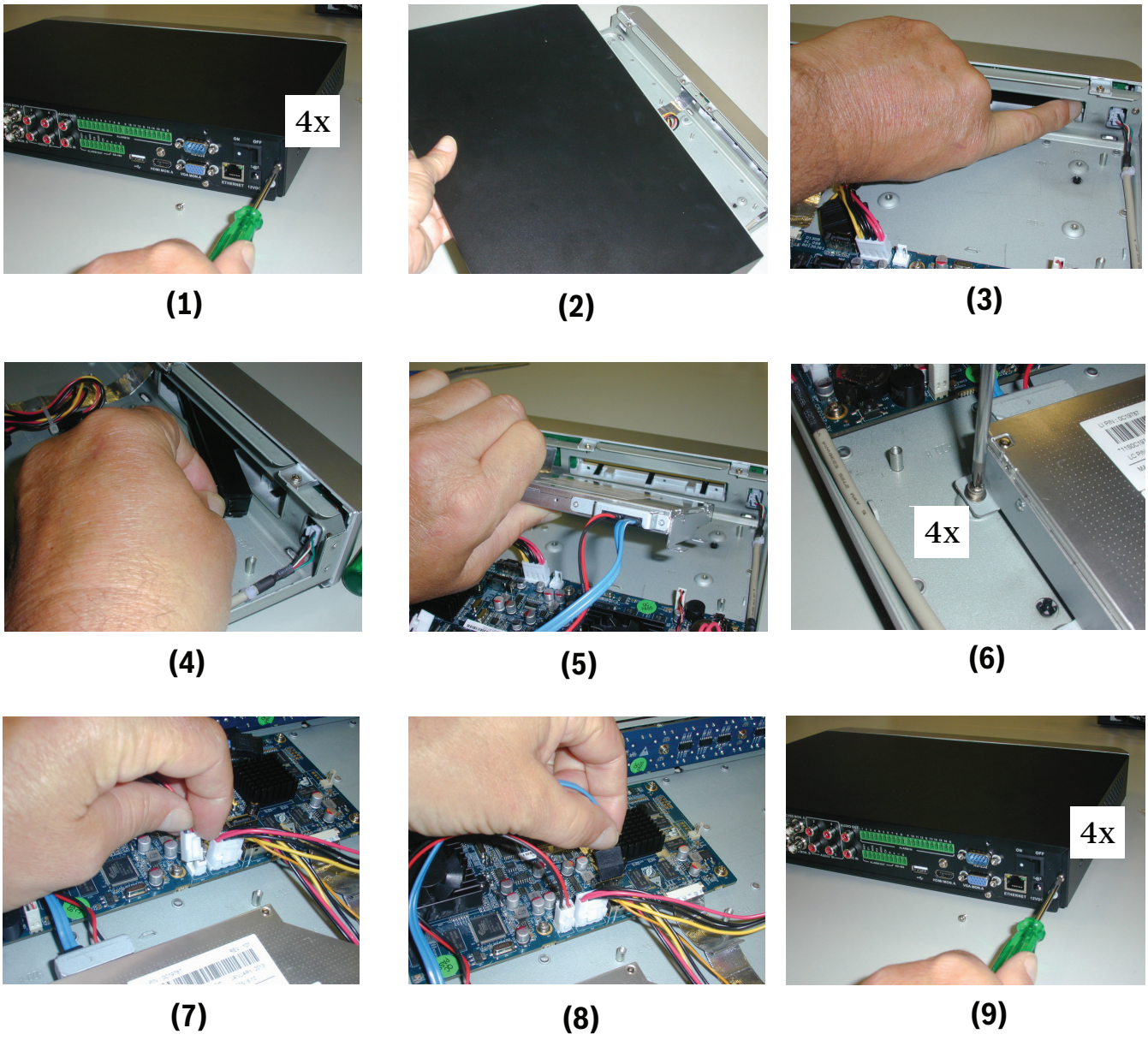


Figure 5.12: Install DVD in DIVAR 3000

5.6 Install DVD in DIVAR 5000

See the following components and steps required for this installation (spacers and screws included in package):

Figure 5.13: Install DVD components (DIVAR 5000)

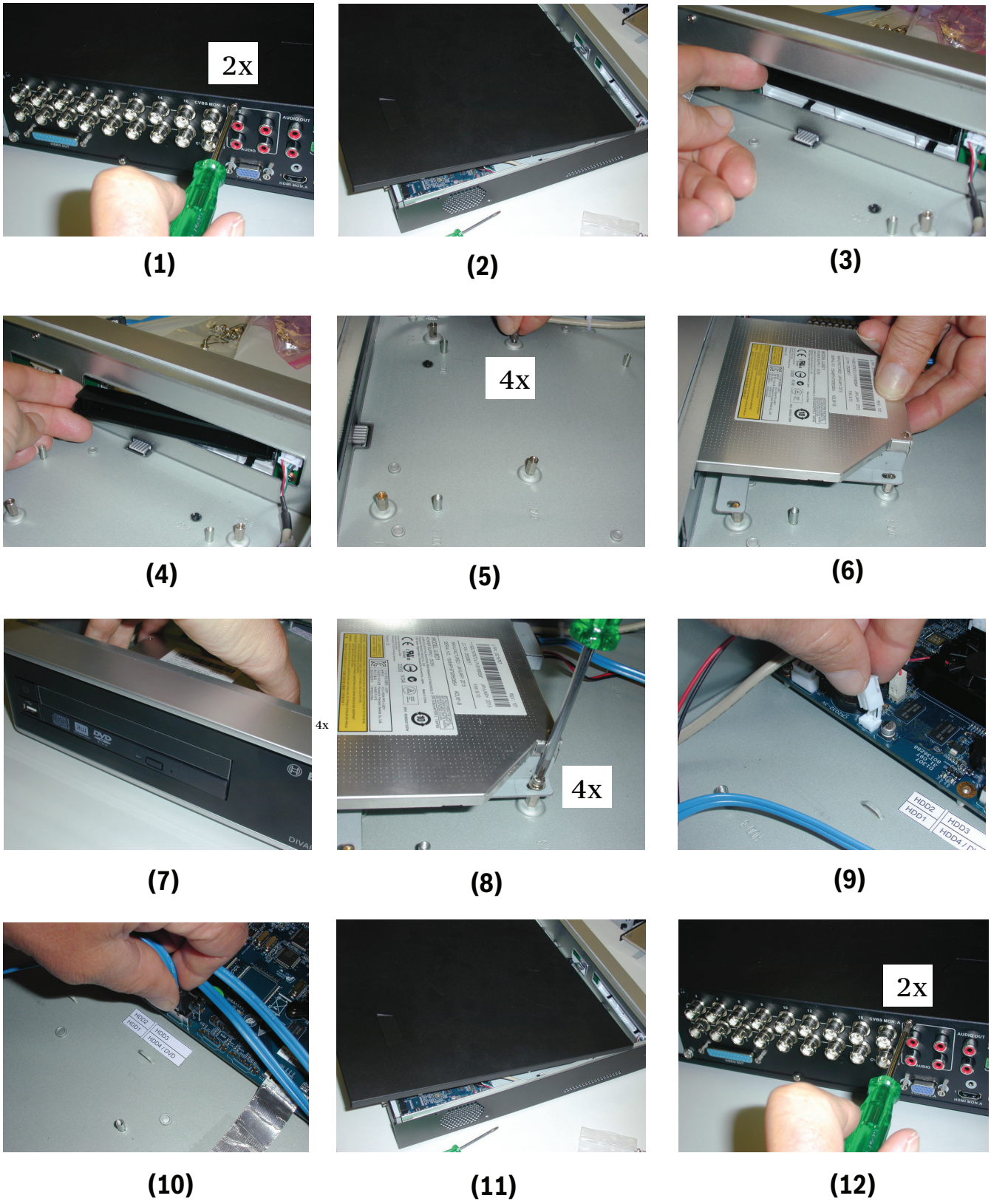


Figure 5.14: Install DVD in DIVAR 5000

Bosch Security Systems B.V.
Torenallee 49
5617 BA Eindhoven
The Netherlands
www.boschsecurity.com
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